

something different from plate 121. The diffusion plate 41 of the Baillie patent is placed within the lower portion of regenerator 48. A mixture of catalyst and oxygen gas flows upwardly through a riser or pipe 40 through the diffusion plate 41 into the regenerator 48 that contains a fluidized bed of catalyst 42.

The diffusion plate is not even similar in structure or function to the sieve of the Applicants' claims. The sieve is positioned between the lower part of the cyclone housing and the upper part of a dipleg. Also, the flow of the catalyst particles is by gravity in the downward direction through the sieve and into the dipleg. While, on the other hand, the flow through the diffusion plate of the Baillie patent is in the upward direction. Also, the diffusion plate is positioned within the regenerator itself and not within a cyclone separator as in the Applicants' claimed invention.

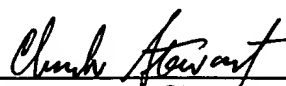
Concerning plate 121 of the Baillie patent, it is structurally different and serves a different function than the Applicants' sieve. Plate 121 of the Baillie patent is one of the elements of the vortex reflecting device 120. While plate 121 has a plurality of holes, the plate 121 is preferably substantially solid. The holes are located toward the edge of the plate 121 so that the solid particles can drift downward while remaining near the wall of the separator so they do not have to migrate toward its center axis where they might be entrained by the vortex.

The Applicants' claimed invention includes a sieve that covers the dipleg of a cyclone separator thereby preventing certain size particles from passing into and clogging the dipleg. The openings of the sieve are defined relative to the diameter of the dipleg. The Baillie patent does not teach these dimensions. Moreover, the function of the Baillie plate 121 is completely different from the function of the Applicants' sieve in that the Baillie plate is part of the vortex reflecting device and the openings therein are on the outer edge plate so that the catalyst particles flow along the wall of the separator. The Applicants' sieve, on the other hand, is placed over the dipleg inlet opening located near the central axis of the cyclone vessel.

In view of the many differences as noted above between the Applicants' claimed invention and the cited prior art, reconsideration and withdrawal of the Examiner's final rejection of the claims pending in this application are respectfully requested.

Respectfully submitted,

HENDRIK A. DIRKSE, HUBERTUS W. A. DRIES,
and LOUIS E. STEIN

By 
Their Attorney, Charles W. Stewart
Registration No. 34,023
(713) 241-0360

P. O. Box 2463
Houston, Texas 77252-2463